

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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SECURITIES AND EXCHANGE COMMISSION,	:
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Plaintiff,	:
	:
- against -	:
	:
RIPPLE LABS, INC., BRADLEY GARLINGHOUSE,	:
and CHRISTIAN A. LARSEN,	:
	:
Defendants.	:
	:
-----X	

PLAINTIFF SECURITIES AND EXCHANGE COMMISSION’S
BRIEF IN OPPOSITION TO DEFENDANTS’ MOTION
TO EXCLUDE THE TESTIMONY OF [REDACTED]

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Plaintiff Securities and Exchange Commission (the “SEC”) respectfully submits this brief in opposition to Defendants’ motion to exclude the testimony of SEC expert Professor [REDACTED] Ph.D. (“[REDACTED]” D.E. 538. For the reasons below, the motion should be denied.

PRELIMINARY STATEMENT

The SEC alleges that Defendants Ripple Labs Inc. (“Ripple”), Christian Larsen (“Larsen”), and Brad Garlinghouse (“Garlinghouse”) (together “Defendants”) failed to register their offers and sales of XRP, in violation of Section 5 of the Securities Act of 1933, and that Larsen and Garlinghouse aided and abetted Ripple’s violations. (Am. Compl., D.E. 46, ¶¶ 1-7). To prove its case, the SEC must show that Defendants’ offers and sales of XRP involved “investment contracts.” An “investment contract” entails (1) an investment of money, (2) in a common enterprise, (3) with a reasonable expectation of profits based on the efforts of others. *See SEC v. W.J. Howey Co.*, 328 U.S. 293, 298-99 (1946); *SEC v. Edwards*, 540 U.S. 389, 395 (2004).

[REDACTED] proffered testimony will help the jury decide the third *Howey* prong: the extent to which Defendants’ efforts could be expected to result in profits for investors. Conceding [REDACTED] qualifications, Defendants criticize his methodology and argue that he only analyzes “a miniscule... data set” and “ignores critical steps” in his regression analysis, among other claims. D.E. 538 at 9. Defendants’ arguments fail because [REDACTED] methodology is reliable and reliably applied, and he considers sufficient facts and data to reach his conclusions. Defendants are free to cross-examine [REDACTED] on these points at trial, but they do not serve as a proper basis for excluding his testimony.

BACKGROUND

[REDACTED] is a Professor of Finance and the [REDACTED] at the [REDACTED] ([REDACTED] Report (“Report”), D.E. 548-1 ¶ 3). He has taught the subject of investments for at least [REDACTED] years. (*Id.*) His research focuses on forensic finance with a specific focus on [REDACTED] (*Id.* ¶ 4) His academic

research on the digital asset [REDACTED], titled “[REDACTED]” was published in *The Journal of Finance* and has been featured in over [REDACTED] media outlets. (*Id.*) He has also published over [REDACTED] peer-reviewed academic papers and has co-authored numerous published journal papers regarding [REDACTED]. (*Id.*)

The SEC retained [REDACTED] to analyze: (1) whether Defendants took steps to influence XRP prices; and (2) the incentives that might have been present for Defendants to attempt to influence the price of XRP. (*Id.* ¶ 1). [REDACTED] proffered two opinions on Defendants’ trading activity and four opinions on Defendants’ sales practices and incentives.

With regard to his trading opinions, [REDACTED] first opines that *at specific times* Defendants directed GSR—a digital asset trading and market-making firm—to buy XRP in a manner consistent with i) pushing XRP prices upward or ii) providing a price floor to stabilize and keep XRP prices from falling.¹ (*Id.* ¶ 9a). He next opines that Defendants sold XRP in a manner designed to minimize downward pressure on XRP’s price and employed trading strategies to protect XRP’s price. (*Id.* ¶ 9b).

As to his remaining opinions, [REDACTED] opines that Defendants: (1) restricted certain sales of XRP to mitigate selling pressure and to protect XRP’s price from falling; (2) were incentivized, with Ripple’s executives, to influence XRP’s price; (3) used XRP sales to supplement a very significant funding gap; and (4) used XRP in a manner similar to how companies use stock. (*Id.* ¶¶ 9c-f).

In support of his trading opinions, [REDACTED] analyzes episodes of Ripple-directed trading by GSR, based on a reliable, peer-reviewed methodology. [REDACTED] outlines his process for determining episodes of Ripple-directed trading around specific communications, which are based on Ripple

¹ A price floor means trading to prevent the price from falling below a certain price or “floor.” (Report ¶ 19).

documents with trading directives, and provides technical details of the identification of XRP Ledger (the cryptographically-secured ledger on which XRP exists) trades in his report.

██████████ also performs a regression analysis for certain time periods to examine if patterns of buying in response to past price trends (as discussed in specific communications) also hold in the broader data that he analyzes. The methodology that he applies in support of his regression analysis follows the methodology set forth in a peer-reviewed paper he co-authored that studies the relation between institutional ownership and stock returns (“the ██████████”).²

██████ opinions concerning Defendants' sales practices and incentives are based upon his extensive experience teaching and researching finance and investments and his numerous peer-reviewed publications on these subjects.

LEGAL STANDARD

██████████ proffered testimony meets the requirements of admissibility. Pursuant to Fed. R. Evid. 702, a qualified expert is permitted to testify if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case. *United States v. Napout*, 963 F.3d 163, 187–88 (2d Cir. 2020).

As this Court has held, the exclusion of expert testimony is warranted only when there are “serious flaws in reasoning or methodology,” given the “liberal admissibility standards of the Federal Rules of Evidence.” *Nationwide Mut. Fire Ins. Co. v. Sunbeam Prods., Inc.*, 2014 WL 3875844, at *2 (S.D.N.Y. July 17, 2014); *see also Packard v. City of N.Y.*, 2020 WL 1479016, at *3 (S.D.N.Y. Mar. 25,

² “The [REDACTED]” (D.E. 539-3) refers to

2020) (“The ‘liberal thrust’ of the Federal Rules of Evidence and their ‘general approach of relaxing the traditional barriers to opinion testimony counsels in favor of admissibility’” (quoting *Daubert v. Merrill Dow Pharmaceuticals*, 509 U.S. 579, 588 (1993)). Disputes regarding “faults in [an expert’s]...methodology, or lack of textual authority for his opinion, go to the weight, not the admissibility, of his testimony.” *Packard*, 2020 WL 1479016, at *3 (quoting *McCulloch v. H.B. Fuller Co.*, 61 F.3d 1038, 1044 (2d. Cir. 1995)). “If an expert’s testimony lies within ‘the range where experts might reasonably differ,’ the jury, and not the trial court, should ‘decide among the conflicting views of different experts.’” *CFTC v. Wilson*, 2016 WL 7229056, at *7 (S.D.N.Y. Sept. 30, 2016) (quoting *Kumbo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 153 (1999)).

ARGUMENT

I. ██████ Opinions about Defendants’ Trading Activity Are Admissible.

A. ██████ Employs a Reliable Methodology Based on Sufficient Facts and Data.

In his opening report, ██████ analyzes whether Defendants expended efforts consistent with attempting to influence XRP’s price. (Report ¶ 15). Based upon his analysis of relevant facts and data cited in his report, ██████ proffers two opinions, described above, concerning Defendants’ trading activity. In support of his opinions, ██████ analyzes episodes of Ripple-directed trading that were determined using a consistent, verifiable, and objective approach and applies a reliable methodology to arrive at his conclusions.³

1. ██████ Methodology Is Reliable.

██████ analysis of Ripple-directed trading by GSR in support of his first trading opinion—that *at specific times* Ripple and its executives directed GSR to buy XRP in a manner consistent with (i) pushing prices upward, or (ii) providing a price floor (Report ¶ 9a)—applies a sound methodology.

³ Defendants mischaracterize ██████ trading opinions as causal pricing conclusions (D.E. 538 at 9-10)—they are not. He opines on the extent to which the trading data is consistent with Ripple-directed trading instructions, not about causality.

First, ██████ uses the following criteria to determine episodes of GSR trading directed by Ripple: (1) instances of actionable trading instructions from Ripple to GSR (██████ Depo. Transcript (“Tr.”) 87:8-12); (2) available trading data on blockchains (*id.* 95:10-14); and (3) the correspondence between periods over which trading directives were to be implemented and available trading data (*id.*) (hereinafter, “Directed-Trading Criteria”). Second, ██████ describes the methodology used to produce Figures 1-4 in his report, which plot Ripple-directed trades and corresponding XRP price movement. (Report ¶¶ 17-25).

Specifically, the methodology describes the criteria for the use of specific instructions from Ripple’s trading directive to GSR to identify the relevant time period, trading location/pair, and trading addresses, computing volume-weighted average prices using relevant data, and plotting the trading activity to see if GSR traded according to Ripple’s specific directives. (*Id.*). The data ██████ analyzes provides a reliable basis for his measured conclusion, which is limited to “*specific times*” and specific episodes of Ripple-directed trading. (*Id.* ¶ 9a). Many peer-reviewed academic papers, including a paper by Defendants’ rebuttal expert, Allen Ferrell (“Ferrell”), graphically present similar evidence of returns or volume over short periods of time.⁴

Defendants claim that ██████ analysis is limited to a small set of trades that cover a few days (<1% of days of the alleged offering period). D.E. 538 at 9-10. Even if this were the case, failure to consider other data is an issue of weight, not admissibility. *Aventis Env’t Sci. USA LP v.*

⁴ See, e.g., DeAngelo, Harry, and Linda DeAngelo, *Controlling Stockholders and the Disciplinary Role of Corporate Payout Policy: A Study of the Times Mirror Company*, 56 J. Financ. Econ. (2000) at 153-207 [Figure 3]; Chacko, George, Peter Tufano, and Geoffrey Verter, *Cephalon, Inc. Taking Risk Management Theory Seriously*, 60 J. Financ. Econ. (2001) at 449-485 [Figure 3]; Hu, Grace Xing, et al., *Premium for Heightened Uncertainty: Explaining Pre-Announcement Market Returns*, J. Financ. Econ. (2021) [Figure 1]; Bernile, Gennaro, Jianfeng Hu, and Yuehua Tang, *Can Information Be Locked Up? Informed Trading Ahead of Macro-News Announcements*, 121 J. Financ. Econ. (2016) at 496-520 [Figure 2]; Ferrell, Allen, and Atanu Saha, *The Loss Causation Requirement for Rule 10b-5 Causes of Action: The Implications of Dura Pharmaceuticals, Inc. v. Broudo*, The Business Lawyer (2007) at 163-186 [Figure 2].

Scotts Co., 383 F. Supp. 2d 488, 514 (S.D.N.Y. 2005) (“[A] challenge to the facts or data relied upon by [the expert] does not go to the admissibility of his testimony, but only to the weight of his testimony.”). However, the trading windows that ██████ analyzes directly correspond to the time periods where (1) available communication between Ripple and GSR included instructions to modify trading behavior, and (2) where relevant trading data were available as described in his report. (Report ¶¶ 16-17; *Ex App’x*). Furthermore, the windows vary in length to fit periods corresponding to the time periods of actionable trading instructions from Ripple to GSR. For instance, in response to an inquiry from ██████, Ripple’s ██████, regarding when trading activity would begin, GSR executive ██████ responded that Day 1 would mean “the 24 hours starting 6am PST” (or 1 p.m. Coordinated Universal Time on September 15, 2016). (*Id.* ¶ 17). ██████ analyzes XRP transactions conducted by GSR on September 15 and 16, 2016, in Figure 1 of his report, which shows that the trading activity was consistent with this email correspondence. (*Id.* ¶ 18). In a separate instance, on September 23, 2016, with Garlinghouse’s approval, ██████ directed GSR “to keep the buying light post announcement and then do the bigger slug starting Sunday night [September 25, 2016].” (*Id.* ¶ 22). Figure 3 shows that the trading activity was consistent with this email correspondence. (*Id.* ¶ 23).

Defendants also claim that ██████ omits aspects of trading day activity from the days he does consider and does not explain why such data were excluded from his analysis. D.E. 538 at 10. As explained in his report, ██████ intraday analysis of GSR trading activity relies on the availability of identifiable XRP blockchain addresses. (*Id.* ¶ 16 & *App’x D*). He explains that “[s]ince the XRP Ledger is a publicly available database and at least some of the addresses from which GSR sold Ripple’s XRP are known through discovery, one can examine GSR’s trading activities directly on the XRP Ledger.” (*Id.* ¶ 16). By limiting analysis to only XRP Ledger transactions from identifiable addresses (*id.* ¶¶ 61-64 & *App’x D*), ██████ minimizes the chance of erroneously classifying trades as

Ripple-directed GSR trading when, in fact, they are not. Moreover, ██████ explains in his deposition the importance of using on-ledger trading to mitigate potential errors that could be driven by wash trading on centralized exchanges.⁵ (Tr. 143:25-144:8).

██████ conclusions about the trading activity of these accounts consider the complete set of trades made on the XRP Ledger's XRP/USD trading pair—meaning trades of XRP for U.S. Dollars and vice versa—during the relevant time periods. Indeed, when asked whether off-ledger trading activity would be relevant to his analysis and conclusion, ██████ responded, “[n]o...I’m looking at whether they followed the directives...of Ripple, and whether they, in fact, traded in a manner as directed.” (Tr. 123:24-124:8).

██████ analysis of Ripple-directed GSR trades—illustrated in Figures 1-4 and 6 of his Report—is also supported by sufficient facts and data. Figures 1-4 were prepared based on a review of 30 email chains, each of which contains discussion between Ripple and GSR employees regarding buying or selling XRP. ██████ selected the emails corresponding to Figures 1-4 based on the Directed-Trading Criteria described in Section I.A.1 above. ██████ analysis is based upon a thorough review of the 30 email chains in order to determine episodes of Ripple-directed trading activity. He uses the specific instructions from Ripple’s trading directive to GSR to identify the relevant time period, trading location/pair, and trading addresses, and analyzes GSR trading activity to see if GSR traded according to Ripple’s specific directives. (Report ¶¶ 15-25). This is unlike the expert in the case Defendants cite on this issue, whose analysis was limited to trading in a single security over a short time frame. *See SEC v. Lek Secs. Corp.*, 370 F. Supp. 3d 384, 419 (S.D.N.Y. 2019) (finding that three examples did not provide any adequate basis for an expert’s broad conclusions based on this non-representative sample).

⁵ Wash trading or wash sales refer to entering into, or purporting to enter into, transactions to give the appearance that purchases and sales have been made, without incurring market risk or changing the trader’s market position.

Defendants' criticisms of [REDACTED] analysis of Larsen's XRP sales, shown in Figure 5 of [REDACTED] report, are also meritless. D.E. 538 at 11. As with the analysis for Figures 1-4, the analysis concerning Larsen's sales is dependent upon the specific statements in communications between Ripple executives and Larsen. For instance, on June 11, 2017, Garlinghouse contacted Larsen and noted there had been "decent stability in the price over the past 36 hours." (Report ¶ 27). Larsen responded that he personally bought a "total [of] \$800k [of XRP] by end [of] weekend" of June 10-12, 2017, via GSR. (*Id.*). Consistent with the communication's weekend-buying directive, the trades on Larsen's behalf in Figure 5 of the Report show that purchases were made from June 10-12, 2017, on the digital asset trading platform Poloniex, on the XRP/BTC pair (trades of XRP for Bitcoin and vice versa), as this is the trading pair and location for which trading data were available. (*Id.* ¶ 28).

Defendants' reliance on *In re LIBOR-Based Fin. Instruments Antitrust Litigation* for the proposition that [REDACTED] opinions should be excluded because he purportedly cherry-picked the data he selected for measuring price movements is misplaced. 299 F. Supp. 3d 430, 483-84 (S.D.N.Y. 2018). As shown above, [REDACTED] determines episodes of Ripple-directed trading based on existing communications and available trading data. He analyzes instances of Ripple-directed trading activity and concludes that GSR did, in fact, trade as directed in the instances examined. In addition to this targeted analysis around emails, [REDACTED] also examines XRP trading by Ripple's market makers in the broader data (from January 1, 2015, to September 12, 2019).⁶ Thus, his analysis supports his opinions. In any event, Defendants' criticisms go to the weight, not the admissibility, of [REDACTED] testimony. *Packard*, 2020 WL 1479016, at *3.

⁶ Defendants mischaracterize [REDACTED] opinion as "broad conclusions" (D.E. 538 at 9), but [REDACTED] first opinion does not opine on the larger set (multiple years) of data. Rather, his first opinion opines on specific Ripple-directed trades. In his second trading opinion (supported by his regression analysis), he opines about trading activity in the broader data (from January 1, 2015, to September 12, 2019).

2. [REDACTED] Regression Analysis Is Scientifically Valid and Reliable.

In his second trading opinion, [REDACTED] opines that Ripple sold XRP to purchasers through market-making firms in a manner designed to minimize downward pressure on XRP's price. (Report ¶ 9b). [REDACTED] performed a regression analysis for dates between January 1, 2015, and September 12, 2019, (Report ¶ 34 [Table I]) to examine "whether imbalances [on a given day] are related to past returns."⁷ (Tr. 86:5-8). Defendants argue that [REDACTED] departed from the methodology he employed in his [REDACTED] in two ways that render his opinions unreliable: (1) by failing to examine price return as a dependent variable and (2) by not examining "contemporaneous imbalance." D.E. 538 at 12. Defendants' criticism shows a lack of understanding of [REDACTED] opinion, the [REDACTED], and the methodology described therein.

[REDACTED] opines on whether the amount of XRP bought or sold on Ripple's behalf on a given day is influenced by the prior day's price changes (Tr. 249:6-8, 251: 3-6, 253:3-6).⁸ [REDACTED] uses the [REDACTED] from his [REDACTED] [REDACTED] to examine whether buy-sell imbalances on a given day are related to the previous day's returns. D.E. 539-3 at 2298-2299.⁹ Accordingly, [REDACTED] follows the exact buy-sell imbalance regression methodology presented in the [REDACTED] to analyze whether XRP buy-sell imbalances on a given day are related to the previous day's returns, and this regression controls for the major factors that the [REDACTED] examined to influence [REDACTED]. Indeed, the regression

⁷ [REDACTED] defines "imbalance" as the number of XRP units purchased minus the number of XRP units sold per day by [REDACTED] and [REDACTED] on Ripple's behalf, normalized by dividing by the average daily circulating supply of XRP over the previous 30 calendar days. (Report ¶ 34 [Table I]).

⁸ In this brief, "return," "returns," "price return," and "price changes" are used interchangeably.

⁹ The regression equation used in [REDACTED] expert report (D.E. 548-1 ¶ 34, [Table I]) appears on page [REDACTED] of [REDACTED] (2003). D.E. 539-3.

References to "4AB" refer to the regression equation from page [REDACTED] unless otherwise noted.

equation used in Table I of [REDACTED] Report is the same regression as the primary regression from the [REDACTED]. (Tr. 240:14-25).¹⁰

Defendants' claim that [REDACTED] deviates from his [REDACTED] by "failing to examine 'price return' as a dependent variable" is baseless. D.E. 538 at 12. First, as discussed in the [REDACTED]
[REDACTED]
[REDACTED] D.E. 539-3 at 2300, [REDACTED] does not examine price return as a dependent variable in Table I of his report because he is not trying to answer the question of whether XRP imbalances predict future returns (Tr. 255:19-24, 254:22-259:6). As [REDACTED] explained in his deposition, he is "not offering any opinion about whether Ripple is able to predict the future" (Tr. 256:8-9).¹¹ Rather, he is opining on whether the amount of XRP bought or sold on Ripple's behalf on a given day is influenced by the prior day's price changes. (Tr. 253:3-6, 251:3-6, 249:6-8). He thus employs exactly the same [REDACTED] in his expert report as he used in his [REDACTED] to analyze whether XRP buy-sell imbalances on given day are influenced by the previous day's returns.

Defendants also claim that [REDACTED] deviates from his [REDACTED] by not examining "*contemporaneous imbalance*." D.E. 538 at 12. Yet, both the Report (Rep. Table I) and the [REDACTED] [REDACTED]

¹⁰ The regression analysis shown in Table I of [REDACTED] report examines the relationship between imbalance on a given day and prior day price changes as shown by the regression term $\beta_{-1} * \text{Return}_{(t-1)}$. (Rep. ¶ 34). The previous day return coefficient, β_{-1} , is highly statistically significant and negative—indicating that, as prior day returns increase, [REDACTED] and [REDACTED] sell more XRP tokens (or buy fewer). (*Id.*). That is, on average, [REDACTED] and [REDACTED] sell more (or buy fewer) XRP tokens following a day of positive price returns. And [REDACTED] and [REDACTED] sell less (or buy more) XRP tokens following a day of negative price returns.

¹¹ Columns [3] and [4] of Defendants' rebuttal expert Allen Ferrell's Exhibit 7 Panel A show the results of regressions examining "price return" as the dependent variable. D.E. 548-22. [REDACTED] criticizes Ferrell's analysis, stating: "And so all that relationship in Specification [Columns] 3 and 4 is examining is...whether trading on behalf of Ripple is able to predict the future...I'm not offering any opinion about whether Ripple is able to predict the future." (Tr. 256:3-9).

[REDACTED] examine [REDACTED] ($I(t)$) as a dependent variable—meaning, by having $I(t)$ as a dependent variable in a regression, the report and [REDACTED] examine the factors that influence [REDACTED] on a given day. The [REDACTED] are exactly the same in the report and the [REDACTED].¹² However, [REDACTED] was asked in his deposition whether he analyzed [REDACTED] in the [REDACTED] that he used in support of his analysis of Defendants’ trading activity (Tr. 236:2-5). Along with many other analyses in his entire [REDACTED] [REDACTED] explained that [REDACTED] is the correct way to do the relationship because you’re looking at the relationship between [REDACTED] and past returns.” (Tr. 236:8-10).¹³ [REDACTED] follows exactly the same [REDACTED] [REDACTED] presented in his [REDACTED] to analyze whether XRP [REDACTED] on a certain day are related to the previous day’s returns. This regression does not have contemporaneous returns as an independent variable because doing so would not answer the question his analysis asks. Moreover, even when contemporaneous returns were included as an independent variable—as Ferrell, Defendant’s rebuttal expert, does in his analysis—[REDACTED] conclusion remains unchanged. (Tr. 248:10-20).¹⁴

In summary, [REDACTED] fully and correctly applies the [REDACTED] from the [REDACTED] [REDACTED] to show that the regression coefficient on the prior day’s returns is negative and statistically significant. Indeed, Ferrell’s analysis in his rebuttal report shows that the relationship between

¹² The equation used in [REDACTED] expert report (Report ¶ 34 [Table I]) appears on [REDACTED] [REDACTED]. D.E. 539-3.

¹³ [REDACTED] details additional concerns of using contemporaneous returns as an independent variable in his deposition. (Tr. 218:23-220:10).

¹⁴ As [REDACTED] explained in his deposition, even after Ferrell includes contemporaneous return as an independent variable, [REDACTED] analysis is robust. (Tr. 248:10-20).

imbalance on a given day and the prior day's return in ██████ analysis holds even after the addition of another control. (Tr. 248:13-251:10). Accordingly, ██████ regression analysis is scientifically sound and supported by his peer-reviewed methodology described in the ██████. *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d. Cir. 2002) (expert's scientific testimony that rests upon "good grounds" is admissible).

Defendants' arguments essentially amount to a criticism that *their* rebuttal expert's methodology is somehow better. Any conflict between the experts' methodologies should be resolved by the jury, *Packard*, 2020 WL 1479016, at *3; *Wilson*, 2016 WL 7229056, at *7, because the use of a competing but reliable methodology goes to weight, not admissibility. *McCulloch*, 61 F.3d at 1043-44.

B. ██████ Methodology Is Consistently Applied.

Defendants claim that ██████ offers conclusions about his trading opinions that exceed the bounds of what his methodology would support. D.E. 538 at 13-14. As examples, they claim that ██████ did not examine "a single Ripple purchase after November 2016" and analyzes "only two...price floors." (*Id.*). Defendants also claim that ██████ did not test whether their actions actually caused changes in XRP prices. (*Id.*). Defendants' arguments are flawed.

First, ██████ does in fact examine Ripple purchases after 2016: his regression model examines Ripple-directed trading activity from 2015 to 2019.¹⁵ (Report ¶¶ 34-35).

¹⁵ The regression analysis in Table I of ██████ report directly follows the ██████ as well as similar peer-reviewed methodology in Chordia, Tarun, Richard Roll, and Avanidhar Subrahmanyam, *Order Imbalance, Liquidity, and Market Returns*, 65 J. Financ. Econ. (2002) at 111-130; Chordia, Tarun, and Avanidhar Subrahmanyam, *Order Imbalance and Individual Stock Returns: Theory and Evidence*, 72 J. Financ. Econ. (2004) at 485-518; and ██████ (2007) at 518-551.

Second, because [REDACTED] does not render any opinion regarding causal price analysis—he does not opine that Defendants’ actions *caused* XRP price changes—Defendants’ argument that he does not test whether their actions caused XRP price changes is nonsensical. As [REDACTED] explains in his Report: “The instances examined...provide specific examples of how Ripple and certain of its executives directed GSR to trade XRP on behalf of Ripple in a way consistent with an attempt to increase or stabilize the price of XRP.” (Report ¶ 25). Thus, [REDACTED] qualifies that the price movements in these Ripple-instructed GSR trading periods are “at least partially successful in its targeted efforts in these directed cases.” (*Id.*). He offers no opinion on the broader causes of XRP price changes and thus the methodology he employs to analyze GSR trades “at specific times” to show that Ripple directed GSR to buy XRP in a manner consistent with pushing prices upwards is sound and supported by his analysis. Defendants’ criticism of his methodology goes to weight and is not grounds for exclusion. *Packard*, 2020 WL 1479016, at *3.

II. [REDACTED] Remaining Opinions Are Reliable.

[REDACTED] also opines about: (1) Defendants’ efforts to mitigate selling pressure and protect XRP’s price from falling; (2) Defendants’ incentives to influence XRP’s price; (3) use of XRP sales to supplement a funding gap; and (4) similarities between XRP and stock in a company. (Report ¶¶ 9c-f). Defendants claim these opinions are not supported by any methodology or are speculative, but [REDACTED] applied his experience in the field of economics and finance to the relevant facts at hand, and his opinions satisfy the reliability requirements under Rule 702. *Sandler v. Montefiore Health Sys.*, 2018 WL 4636835 (S.D.N.Y. Sept. 27, 2018) (expert testimony based on experience will help trier of fact understand particular context and circumstances of conduct at issue).

Specifically, [REDACTED] opinion on lock-up provisions—provisions restricting the amount purchasers could resell on the open market for XRP—is based on financial and economic theory that examines the functions of lock-up provisions (Report ¶¶ 41-43). [REDACTED] relates Ripple’s selling

restrictions to the market implications of lock-up provisions discussed in the finance literature and concludes, “Ripple limited the supply of XRP tokens, thereby minimizing downward pressure on the price of XRP” (*Id.* ¶ 41). His opinions about the incentives Defendants provided for XRP sales incorporate his review of Ripple’s operational costs, share repurchases, outside funding sources, and executive compensation and are also based on his extensive experience in the field of finance and the application of this experience to the relevant facts. (*Id.* ¶¶ 44-46).

Similarly, his opinions about Ripple’s use of XRP sales to supplement its funding gap are based upon his interpretation of complex financial statements and technical knowledge from the field of finance. (*Id.* ¶¶ 48-50). He presents data analysis and calculations that apply fundamental principles of finance, mathematics and accounting to analyze the relevant data and arrive at his conclusions. Moreover, his opinions on the similarities of XRP and stocks are based on his [REDACTED] of expertise in teaching and his expertise in forming conclusions about financial markets. (*Id.* ¶¶ 53-56). Thus, where, as in this case, an expert’s “method is the application of experience to facts,” the opinion is reliable if it is “properly grounded, well-reasoned, and not speculative; and the expert must show how his or her experience...led to his conclusion.” *In re Methyl Tertiary Butyl Ether (“MTBE”) Products Liab. Litig.*, 2008 WL 1971538, at *6 (S.D.N.Y. May 7, 2008) (internal citations and quotation marks omitted). [REDACTED] opinions on these issues meet this standard.

Defendants also take issue with [REDACTED] tracing analysis of Larsen’s and Garlinghouse’s XRP sales. D.E. 538 at 16-17. [REDACTED] opinions about direct transfers of XRP out of accounts belonging to Larsen and Garlinghouse are undeniably attributable to the respective owners of these accounts because, “[i]n order to transfer XRP, the sender must know the private key that corresponds to the public address which stores the digital assets.” (Report ¶ 13). Moreover, [REDACTED] methodology concerning tracing relies upon the established, consistently applied FIFO (First In, First Out) principle for asset accounting, which is well accepted in the fields of finance, economics,

and accounting. Indeed, academic literature supports the use of FIFO tracing to digital assets, and

tracing algorithm also draws upon his own peer-reviewed academic work

.¹⁶ Thus, tracing

analysis is also reliable under Rule 702.

III. [REDACTED] Opinions Will Assist the Trier of Fact and Are Not Prejudicial.

[REDACTED] opinions about Defendants' efforts to influence XRP's price—including directing GSR to trade in a manner consistent with increasing or stabilizing the price of XRP and employing trading strategies to protect the price of XRP—are relevant to show the extent to which an investor may expect profit derived from Defendants' efforts—a critical element of the *Howey* test for determining an investment contract. Contrary to Defendants' contentions, [REDACTED] does not proffer any opinions about the occurrence of fraud or market manipulation with respect to XRP. D.E. 538 at 17. *Defendants* solicited [REDACTED] views about the potential manipulation of digital assets at his deposition. (Tr. 52:18-23). Therefore, [REDACTED] opinions are highly relevant and not prejudicial and will assist the jury in deciding this case.

CONCLUSION

The Court should deny Defendants' motion to exclude [REDACTED] testimony.

¹⁶ See [REDACTED] (2020) at 1913-1964; Tironasakkul, Tin, et al., *Probing the Mystery of Cryptocurrency Theft: An Investigation Into Methods for Cryptocurrency Tainting Analysis*, arXiv preprint arXiv:1906.05754 (2019); Ahmed, Mansoor, Ilia Shumailov, and Ross Anderson, *Tendrils of Crime: Visualizing the Diffusion of Stolen Bitcoins*, *International Workshop on Graphical Models for Security*, Springer, Cham (2018).

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Respectfully submitted,

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